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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,851	04/19/2001	Jurgen Heuser	Mo-6284/LeA 32,990	6320

7590 06/15/2004  
Patent Department  
Bayer Corporation  
100 Bayer Road  
Pittsburgh, PA 15205-9741

EXAMINER

WITHERSPOON, SIKARL A

ART UNIT	PAPER NUMBER
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1621

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/807,851

Applicant(s)

HEUSER ET AL.

Examiner

Sikarl A. Witherspoon

Art Unit

1621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

Pursuant to an appeals conference, prosecution has been reopened in order to apply the following new rejection.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2-4 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Obrecht (US 4,231,959).

Obrecht discloses a process for producing phosgene by reacting carbon monoxide with chlorine in the presence of activated carbon. The final reaction product gases are at a temperature ranging from 50 to about 70° C, and a pressure ranging from 1.5 kg/cm<sup>2</sup> to about 4.5 kg/cm<sup>2</sup> (147 to 441 kPa<sub>abs</sub>). Phosgene accumulated in the reaction tank amounts to 99.96 mol percent phosgene and 0.02 mol percent carbon tetrachloride (CCl<sub>4</sub>), i.e., an amount of carbon tetrachloride that is significantly less than 150 ppm (see abstract; col. 4, lines 40-58; and Example 1). The process disclosed by Obrecht anticipates the instant claims.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cicha et al (WO 97/30932). The instant claims are drawn to a process for producing phosgene which is low in carbon tetrachloride content by the reaction of carbon monoxide with chlorine in the presence of elemental carbon, in a reactor, wherein the gas stream emerging from the reactor is at a temperature of 30 to 80° C and under a pressure of 120 to 400 kPa.

Cicha et al teaches a process for preparing phosgene by reacting carbon monoxide with chlorine in the presence elemental carbon at a temperature of 40-300° C, preferably, 50-150°C. The phosgene produced has a carbon tetrachloride content of less than 300 ppm, preferably, less than about 100 ppm (p 3, lines 18-32).

Cicha et al differs from the instant invention in that applicants' process recites a specific pressure range, while Cicha et al does not recite a pressure. As such, it is assumed that Cicha's process is conducted at standard pressure, which is 101 kPa. The instant claims are rendered obvious in view of Cicha et al absent a showing of unexpected or superior results. The difference in pressure between 101 and 120 kPa is minimal, and such a range is well within the experimental range that one of ordinary skill in the art would employ in attempting to optimize process results.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cicha et al as applied to claims 2-4 and 8 above, and further in view of Obrecht, (U.S. 4,231,959). The instant claim is drawn to carbon monoxide having a methane content of 50 ppm at most. Cicha et al do not teach such a limitation. However, Obrecht teaches a process for preparing phosgene where in carbon monoxide comprising 0.12 mole percent of methane is reacted with chlorine. Although Obrecht does not specifically teach 50 ppm of methane, the reference shows that trace amounts of methane may be present in the carbon monoxide. It would have been suggested to one of ordinary skill in the art to modify the amount of methane presence in the carbon monoxide reactant, with the motivation of optimizing the concentration of phosgene produced.

### ***Response to Arguments***

Applicant's arguments with respect to claims 2-8 have been considered but are moot in view of the new ground(s) of rejection.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikarl A. Witherspoon whose telephone number is 571-272-0649. The examiner can normally be reached on M-F 8:30-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sikarl A. Witherspoon  
Patent Examiner  
Technology Center 1600

  
Johann Richter, Ph D. Esq.  
Supervisory Patent Examiner  
Technology Center 1600